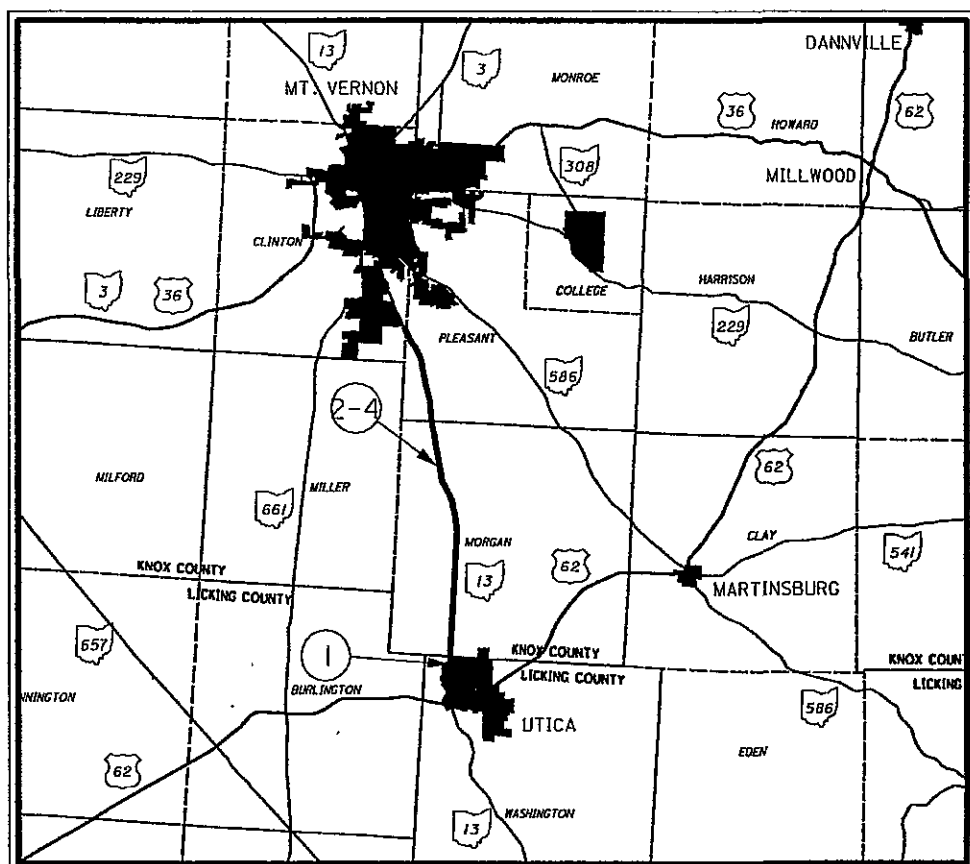


LOCATION MAP



PORTION TO BE IMPROVED
 LATITUDE N40° 18' 03" LONGITUDE W82° 27' 20"

UNDERGROUND UTILITIES
 CONTACT BOTH SERVICES
 CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
 1-800-362-2764
 (TOLL FREE)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
 SERVICE CALL: 1-800-929-0988

DESIGN EXCEPTIONS: NONE

OPA = Other Principal Arterial (Rural)

DESIGN DESIGNATION	LOCATION	
	LICKING CO	KNOX CO
Functional Classification	OPA	OPA
Current ADT (2007)	5800	5300
Design Year ADT (2019)	6500	5900
Design Hourly Volume (2019)	650	590
Directional Distribution	50%	50%
Trucks (24 Hour B&C)	7%	10%
Design Speed	55mph	55mph
Legal Speed	55mph	55mph

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LIC-13-22.39 KNO-13-0.00

VILLAGE OF UTICA CITY OF MOUNT VERNON CLINTON/MORGAN/ PLEASANT/WASHINGTON TOWNSHIP LICKING/KNOX COUNTY

PROJECT DESCRIPTION: 2-LANE ASPHALT CONCRETE RESURFACING AND RELATED WORK.

LOCATION	COUNTY	ROUTE	SECTIONS	NET LENGTH MILES	CITY	VILLAGE
1	LIC	SR 13	22.39-23.58	1.19		UTICA
2	KNO	SR 13	0.00-7.37, 7.98-8.16, 8.22-8.30, 8.50-8.71	7.84		
3	KNO	SR 13	7.37-7.98, 8.16-8.22, 8.30-8.42, 8.71-9.00	1.08	MT.VERNON	
4	KNO	SR 13	8.42-8.50, 9.00-9.16	0.24	MT.VERNON	

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 PAVED SHOULDER DATA 8
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 EXPANSION JOINT (PLAN INSERT SHEET) 13
 RPM LOCATION SUB-SUMMARY 14
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MAINTENANCE PROJECT

PROJECT EDA = N/A
 ESTIMATED CONTRACTOR EDA = N/A
 NOTICE OF INTENT EDA = N/A
 (EDA = INTENT EARTH DISTURBED AREA)

2005 SPECIFICATIONS

THE STANDARD 2005 SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND THE PROPOSAL SHALL GOVERN THESE IMPROVEMENTS.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

ENGINEER'S SEAL
 STATE OF OHIO
 DOUGLAS N. MORGAN
 E-63839
 REGISTERED PROFESSIONAL ENGINEER

SIGNED: *Douglas N. Morgan*
 DATE: 6/19/2007

PLAN PREPARED BY:
 District
 D5
 Production

STANDARD DRAWINGS		STANDARD DRAWINGS	
BP-3.1	7-16-04	TC-65.10	1-21-05
BP-4.1	7-16-04	TC-65.11	1-21-05
BP-7.1	1-19-07	TC-71.10	1-21-05
BP-7.2	1-19-07	TC-73.10	1-19-01
DS-1-92	07-18-03	SUPPLEMENTAL SPECIFICATIONS	
MT-97.10	4-19-02	800	7-20-07
MT-97.11	4-19-02	832	4-25-06
MT-99.20M	1-30-95		

APPROVED *Don D. Barber*
 DATE 6/19/2007 DISTRICT DEPUTY DIRECTOR

APPROVED *Janell Beasley PE, P.S., F.T.S.M.*
 DATE 7/17/07 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E060137
 PID NO. 80709
 CONSTRUCTION PROJECT NO.
 RAILROAD INVOLVEMENT
 COLUMBUS & OHIO RIVER RAILROAD CO.
 CSX, TRANSPORTATION, INC. (OWNER)
 LIC-13-22.39
 KNO-13-0.00
 22

KNO - SR-13-22.39;KNO-13-0.00
 070450 PID - 80709
 Dist 5 9/26/2007

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT SHOULD NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA. BELOW IS A LIST OF UTILITIES LOCATED WITHIN THE PROJECT LIMITS AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT OWNERS AND VERIFY LOCATIONS:

AEP DISTRIBUTION
850 TECH CENTER DRIVE
GAHANNA, OHIO 43230
ATTN: RICK ECKLE
614-883-6829

AEP TRANSMISSION
700 MORRISON ROAD
GAHANNA, OHIO 43230
ATTN: TOD WICK
614-552-1899

COLUMBIA GAS OHIO
920 GOODALE BLVD.
COLUMBUS, OHIO 43212
ATTN: LYLE WHITTEMORE
614-460-2170

COLUMBIA GAS TRANSMISSION
301 MAPLE STREET
SUGAR GROVE, OHIO 43155
ATTN: JIM SWATZEL
740-746-2297

INSITE CABLE
3770 EAST LIVINGSTON AVE.
COLUMBUS, OHIO 43227
ATTN: JOHN WINTERS
614-501-9432 EXT 207

NATIONAL GAS AND OIL CORP.
1500 GRANVILLE ROAD
P.O. BOX 4970
NEWARK, OHIO 43058-4970
ATTN: GREG WILSON
740-348-1254

EMBARO
441 WEST BROAD STREET
PATASKALA, OHIO 43062
ATTN: Brandon Walters
419-755-7532

NOTIFICATION OF ROAD CLOSURE OR RESTRICTION

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR SHALL NOTIFY (IN WRITING) THE DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR WITH COPIES FOR THE DISTRICT 5 ROADWAY SERVICES MANAGER AND PROJECT ENGINEER NOT LESS THAN 21 DAYS BEFORE SUCH CLOSURE OR LANE RESTRICTIONS.

SEND NOTIFICATION TO:

DISTRICT 5 HIGHWAY MANAGEMENT ADMINISTRATOR
P.O. BOX 306
JACKSONSTOWN, OH 43030
PHONE: (740) 323-4400 EXT. 5241

CONSTRUCTION SCHEDULE

NO WORK SHALL BEGIN ON THIS PROJECT UNTIL MAY 01, 2008.

ITEM 617 COMPACTED AGGREGATE, AS PER PLAN

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE PLASTICITY INDEX SHALL BE WAIVED. IF PERMITTED, THE CONTRACTOR MAY USE RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 617.02) IN LIEU OF CRUSHED LIMESTONE.

TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD FOR ESTIMATING PURPOSES ONLY.

PAVEMENT MARKING

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, ETC., SHOWN IN THE PLANS ARE TAKEN FROM EXISTING MARKINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DOCUMENT EXISTING MARKING LOCATIONS (i.e. BY USE OF VIDEO, PICTURES) AND PLACE NEW PAVEMENT MARKINGS AS NEAR AS POSSIBLE TO THE EXISTING LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DOCUMENTATION OF PAVEMENT MARKING SHALL BE SUPPLIED TO THE ENGINEER BEFORE COMMENCEMENT OF ANY OPERATION WHICH WILL REMOVE/OBLITERATE MARKINGS.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

CONVERT THE ENGLISH STANDARD DRAWINGS REFERENCED IN THIS PLAN TO METRIC UNITS USING THE ENGLISH TO SI (METRIC) CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS WILL BE APPROPRIATELY PRECISE AND REFLECT STANDARD INDUSTRY SI (METRIC) VALUES WHERE SUITABLE.

GENERAL NOTES

LIC-13-22-39
KNO-13-0.00

LO1300mgnl.dgn Date 05/21/07

ITEM 614 WORK ZONE MARKING SIGNS

A QUANTITY OF WORK ZONE MARKING SIGNS HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

WORK ZONE MARKING SIGNS	LOCATIONS	
	1	2
W8-H12a (NO EDGE LINES)	2	11
R4-1 (DO NOT PASS)	2	26
R4-2 (PASS WITH CARE)		4
W20-1 (ROAD WORK AHEAD)	7	41
G20-2 (END ROAD WORK)	7	41
TOTAL	18	123

FEATHERING

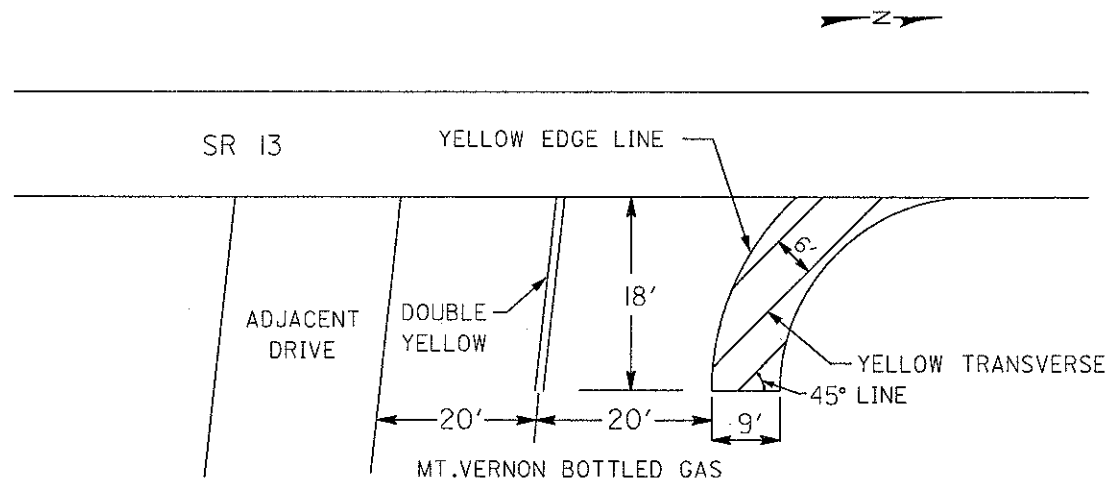
FEATHERING OF THE ASPHALT CONCRETE SHALL BE DONE IN ACCORDANCE WITH SCD DRAWING BP-3.1, 7-16-04.

PAVEMENT MARKING DETAIL

THE FOLLOWING DETAIL IS FOR PAVEMENT MARKING AT DRIVEWAY FOR "MT. VERNON BOTTLED GAS". THE INTENT IS TO RESTRICT THE TRAFFIC FLOW FOR SAFETY PURPOSES. ALL MARKINGS IN THIS AREA SHALL BE ITEM 642 FAST DRY EXCEPT FOR THE TRANSVERSE/DIAGONAL LINE WHICH SHALL BE ITEM 644 THERMOPLASTIC. THE FOLLOWING ESTIMATED QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY.

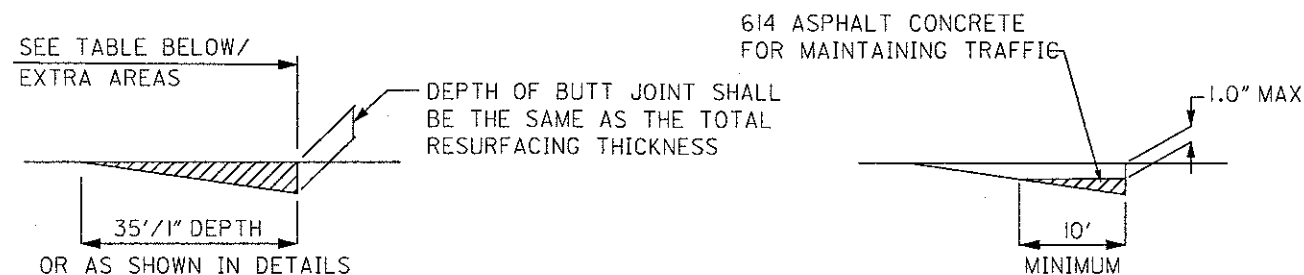
LOCATION 1

- ITEM 642 EDGE LINE 0.01 MILE (29 FT.)
- ITEM 642 CENTER LINE 0.01 MILE (18 FT.)
- ITEM 644 TRANSVERSE LINE 50 FT.



BUTT JOINT

A BUTT JOINT WILL BE REQUIRED AT LOCATIONS SPECIFIED BELOW AND AT EXTRA AREAS WITH WEARING COURSE REMOVED. AFTER THE JOINT IS CONSTRUCTED, THE DROP OFF CREATED SHALL BE MINIMIZED BY IMMEDIATELY PLACING THE PROPOSED SURFACE COURSE TO WITHIN 1.0" OF EXISTING ROADWAY SURFACE OR BY PLACING WEDGE AS SHOWN. BUTT JOINTS SHALL BE AS PER SCD BP-3.1, 7-16-04 UNLESS OTHERWISE SHOWN IN THE PLANS.



LOCATION	ROUTE	DESCRIPTION	SLM	202 WEARING COURSE REMOVED * SQ. YD.	614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC CU. YD.
2	SR 13	BEGIN WORK	0.00	164	0.9
2	SR 13	RR CROSSING #152059J	3.88	164	0.9
2	SR 13	RR CROSSING #152059J	3.88	164	0.9
TOTAL CARRIED TO SHEET 19				492	2.7
4	SR 13	END WORK	9.16	164	0.9
TOTAL CARRIED TO SHEET 21				164	0.9

*INCLUDES QUANTITY FOR SHOULDERS

MAIL BOX TURN OUTS

A QUANTITY OF ASPHALT CONCRETE HAS BEEN PROVIDED IN THE PLAN TO COVER MAIL BOX TURN OUTS. TURN OUTS SHALL BE PAVED AS SHOWN IN THE DETAIL IN DRAWING BP-4.1, 7-16-04.

ANY EXTRA GRADING OF THE SHOULDERS, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE MAIL BOX TURN OUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448), AS PER PLAN.

- ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (448), AS PER PLAN
- LOCATION 2 - 50 CU.YD.
- LOCATION 3 - 7 CU. YD.
- LOCATION 4 - 1 CU. YD.

ITEM 604 CATCH BASIN ADJUSTED TO GRADE

ITEM 604 MANHOLE ADJUSTED TO GRADE

THESE ITEMS SHALL BE USED TO ADJUST CATCH BASINS AND MANHOLES LOCATED THROUGH -OUT THE PROJECT LIMITS AS DIRECTED BY THE ENGINEER. ALL MATERIALS, LABOR EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED SHALL BE INCLUDED FOR PAYMENT WITH THE ITEMS LISTED BELOW.

ANY GAS VALVE BOXES AND TELEPHONE COMPANY MANHOLES ON THIS PROJECT SHALL BE ADJUSTED TO GRADE BY THE RESPECTIVE OWNERS.

ITEM 604 CATCH BASIN ADJUSTED TO GRADE
LOCATION 1 - 6 EACH

ITEM 604 MANHOLE ADJUSTED TO GRADE
LOCATION 1 - 1 EACH

ITEM 202 RAISED PAVEMENT MARKER REMOVED

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS TO REMOVE RAISED PAVEMENT MARKERS FOR DISPOSAL BY THE CONTRACTOR. RPM REMOVAL SHALL NOT OCCUR SOONER THAN 10 DAYS PRIOR TO RESURFACING OF THE ROADWAY. ALL RPM'S REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

ITEM 202 RAISED PAVEMENT MARKER REMOVED
LOCATION 2 - 552 EACH
LOCATION 3 - 77 EACH
LOCATION 4 - 19 EACH

ITEM 209 LINEAR GRADING

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED USING A GRADER OF ADEQUATE SIZE TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER. ALL EXCESS MATERIAL REMAINING AROUND GUARDRAIL AND OTHER AREAS AFTER THE GRADER WORK IS COMPLETED AND NOT DISPOSED OF ON THE SITE, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. ALL EQUIPMENT, LABOR, OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED FOR PAYMENT IN THE UNIT PRICE BID FOR ITEM 209 LINEAR GRADING. THIS WORK MAY BE INTERMITTENT AND SPREAD THROUGHOUT THE PROJECT LIMITS, AS DIRECTED BY THE ENGINEER. ALL LINEAR GRADING WORK SHALL BE DONE BEFORE PLACING THE ASPHALT SURFACE COURSE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSES.

ITEM 209 LINEAR GRADING
LOCATION 2 - 3 MILES

RESIDENCE AND COMMERCIAL DRIVES

AN ESTIMATED QUANTITY OF ITEM 442 ASPHALT CONCRETE HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER TO PAVE APPROACH AREAS TO EXISTING DRIVEWAYS. PAVING SHALL TYPICALLY EXTEND 4' INTO THE DRIVEWAY (MEASURED FROM THE EDGE OF PAVEMENT OR PAVED SHOULDER IF PRESENT). THERE ARE 5 TYPES OF DRIVES: CONCRETE, ASPHALT, GRAVEL, GRAVEL WITH ASPHALT APRON, AND FIELD/OIL WELL DRIVES. FIELD DRIVES AND OIL WELL DRIVES SHALL NOT BE PAVED. GRAVEL DRIVES SHALL BE PAVED BACK 4' INTO THE DRIVEWAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONCRETE AND ASPHALT DRIVES SHALL HAVE BUTT JOINTS OR AS SHORT AN ASPHALT TAPER AS POSSIBLE (PREFERRED 4') AS DIRECTED BY THE ENGINEER SO AS TO PROVIDE A SMOOTH TRANSITION. GRAVEL DRIVES WITH ASPHALT APRONS SHALL ALSO HAVE BUTT JOINTS OR AS SHORT A ASPHALT TAPER AS POSSIBLE (PREFERRED 4') BUT ONLY IF THE EXISTING ASPHALT APRON IS IN AN ACCEPTABLE CONDITION TO BE PAVED OVER AS DIRECTED BY THE ENGINEER. IF THE ASPHALT APRON CANNOT BE PAVED OVER (FOR EXAMPLE, BROKEN INTO SMALL PIECES) AS DETERMINED BY THE ENGINEER, IT SHALL BE REMOVED BEFORE BEING PAVED BACK 4' INTO THE DRIVEWAY. ALL GRADING, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE DRIVES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A PG76-22 (448), AS PER PLAN.

ITEM 442
ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (448), AS PER PLAN
LOCATION 2 - 60 CU.YD.

ITEM 253 PAVEMENT REPAIR, AS PER PLAN

AN ESTIMATED QUANTITY FOR PAVEMENT REPAIR HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER WHERE THE EXISTING PAVEMENT HAS DETERIORATED. FINAL LOCATIONS OF PAVEMENT REPAIR SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION. DEPTH OF EXCAVATION SHALL BE APPROXIMATELY 8". AFTER EXCAVATION HAS BEEN COMPLETED, THE FACE OF THE REPAIR SHALL BE COATED WITH ITEM 407 TACK COAT. REPLACEMENT MATERIAL WILL BE 8" OF ITEM 301 BITUMINOUS AGGREGATE BASE, PG 64-22 (PLACED AND COMPACTED AS DIRECTED BY THE ENGINEER). ALL EXCAVATION NEEDED TO ACHIEVE THE PROPER SLOPES FOR DRAINAGE ON BERMS AND ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 253 PAVEMENT REPAIR, AS PER PLAN. AFTER ALL PAVEMENT REPAIR HAS BEEN ACCOMPLISHED, THE ENTIRE SURFACE WILL BE OVERLAID WITH 1.5" OF ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448), AS PER PLAN.

LOCATION 1
ITEM 253 PAVEMENT REPAIR, AS PER PLAN 230 SQ. YD.

LOCATION 2
ITEM 253 PAVEMENT REPAIR, AS PER PLAN 1515 SQ. YD.

LOCATION 3
ITEM 253 PAVEMENT REPAIR, AS PER PLAN 209 SQ. YD.

LOCATION 4
ITEM 253 PAVEMENT REPAIR, AS PER PLAN 46 SQ. YD.

LO1300MGN3.DGN Date 05/24/07

CALCULATED
BCT
CHECKED
DMM

GENERAL NOTES

LIC-13-22.39
KNO-13-0.00

ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN
 DEPTH OF PAVEMENT PLANING SHALL BE AS SHOWN BELOW OR AS DIRECTED BY THE ENGINEER. THE ROADWAY SHALL BE PLANED SUCH THAT POSITIVE DRAINAGE IS CREATED FROM THE CENTER LINE TO THE EDGE OF PAVEMENT IN TANGENT SECTIONS AND SHALL FOLLOW EXISTING SUPERELEVATIONS WHERE APPLICABLE. THIS MAY REQUIRE ADDITIONAL MILLING DEPTH DUE TO EXISTING GRADER PATCHES AND PAVEMENT REPAIR. ALL SPECIFICATIONS OF ITEM 254 SHALL APPLY, EXCEPT, THE SURFACE COURSE SHALL BE PLACED IMMEDIATELY AFTER THE MILLING OPERATION. NO TRAFFIC SHALL BE ALLOWED TO TRAVEL ON THE MILLED SURFACE.

SR 13 SLM 22.39 TO 23.58 = 1.19 MILE - PLANE 1.5" IN DEPTH (QUANTITY SHOWN ON SHEET 7)

540 TONS OF THE RACP (GRINDINGS) SHALL BE DELIVERED TO THE OHIO DEPARTMENT OF TRANSPORTATION, UTICA OUTPOST, IN UTICA, OHIO. THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 68 FEET. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

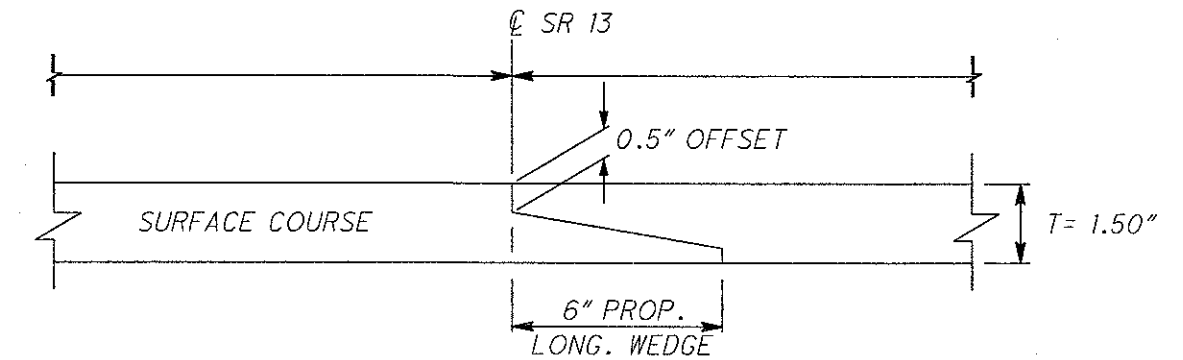
Express Processing Center
 The Federal Aviation Administration
 Southwest Regional Office
 Air Traffic Airspace Branch ASW-520
 2601 Meacham Blvd.
 Fort Worth, TX 76137-4298

Ohio Department of Transportation
 Office of Aviation
 2829 West Dublin-Granville Road
 Columbus, Ohio 43235
 614-387-2346

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448), AS PER PLAN

THE ASPHALT BINDER FOR THE SURFACE COURSE SHALL BE PG 76-22M IN LIEU OF PG 70-22.

CONSTRUCTION OF THE SURFACE COURSE WILL INCLUDE CREATING A WEDGE ALONG THE LONGITUDINAL JOINT BETWEEN THE NORTH AND SOUTH BOUND LANES AS SHOWN IN DETAIL BELOW. THE FIRST LANE CONSTRUCTED SHALL INCLUDE THE WEDGE WHICH EXTENDS 6 INCHES INTO THE ADJACENT LANE. THE PROPOSED WEDGE SHALL REMAIN IN PLACE DURING PLACEMENT OF THE SURFACE COURSE FOR THE ADJACENT LANE.



LONGITUDINAL JOINT DETAIL FOR SURFACE COURSE

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MODIFY STANDARD PAVING EQUIPMENT SUCH THAT THE LONGITUDINAL JOINTS MAY BE CREATED AS SHOWN IN THE DETAIL ABOVE. THE SURFACE COURSE SHALL BE COMPACTED WITH A ROLLER NOT EXTENDING MORE THAN 2" BEYOND THE TOP OF THE UNCONFINED EDGE. AFTER A LIFT HAS BEEN PLACED FOR A SECTION OF S.R. 13, THEN A LIFT FOR THE ADJACENT LANE SHALL BE CONSTRUCTED SUCH THAT THE LONGITUDINAL JOINT IS COMPLETED WITHIN 24 HOURS. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO PERFORM ALL WORK AS DESCRIBED WITHIN GIVEN PLAN NOTE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448), AS PER PLAN.

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT.

GENERAL NOTES

LIC-13-22-39
 KNO-13-0.00

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAIL-BOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4" BY 4" SQUARE OR 4 1/2" DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2" I.D. O.D., AND CONFORM TO AASHTO M 181.

HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL MAILBOX SUPPORT SYSTEM, (SINGLE) (DOUBLE).

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 202 - MAILBOX REMOVED
LOCATION 2 - 1 EACH
ITEM SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE
LOCATION 2 - 1 EACH

ITEM 408 PRIME COAT, AS PER PLAN

THE CONTRACTOR SHALL APPLY ONE COAT OF MC-70 (AS PER SECTION 702) AT A RATE OF 0.40 GALLON PER SQUARE YARD TO THE COMPLETED AGGREGATE SHOULDER (ITEM 617) AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS. THE FOLLOWING QUANTITY OF PRIME COAT, AS PER PLAN SHALL INCLUDE ALL LABOR, MATERIAL AND EQUIPMENT TO PERFORM THE ABOVE MENTIONED WORK.

ITEM 408 PRIME COAT, AS PER PLAN

LOCATION 2 - 1022.4 SY X 0.40 = 409 GAL.
LOCATION 3 - 141.3 SY X 0.40 = 57 GAL.
LOCATION 4 - 31.7 SY X 0.40 = 13 GAL.

PAVING AT RAILROAD CROSSING

WORK THE CROWN OUT OF THE PROPOSED PAVEMENT ON EACH SIDE OF THE RAILROAD CROSSING, BEGINNING 50 FEET [15 METERS] FROM THE NEAREST RAIL, BY RAISING THE EDGES OF THE NEW PAVEMENT TO MEET THE PLATFORM ELEVATION.

L01300mgn4.dgn Date 06/22/07

CALCULATED
DNM
CHECKED
JLS

GENERAL NOTES

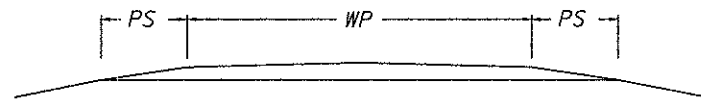
LIC-13-22.39
KNO-13-0.00

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22

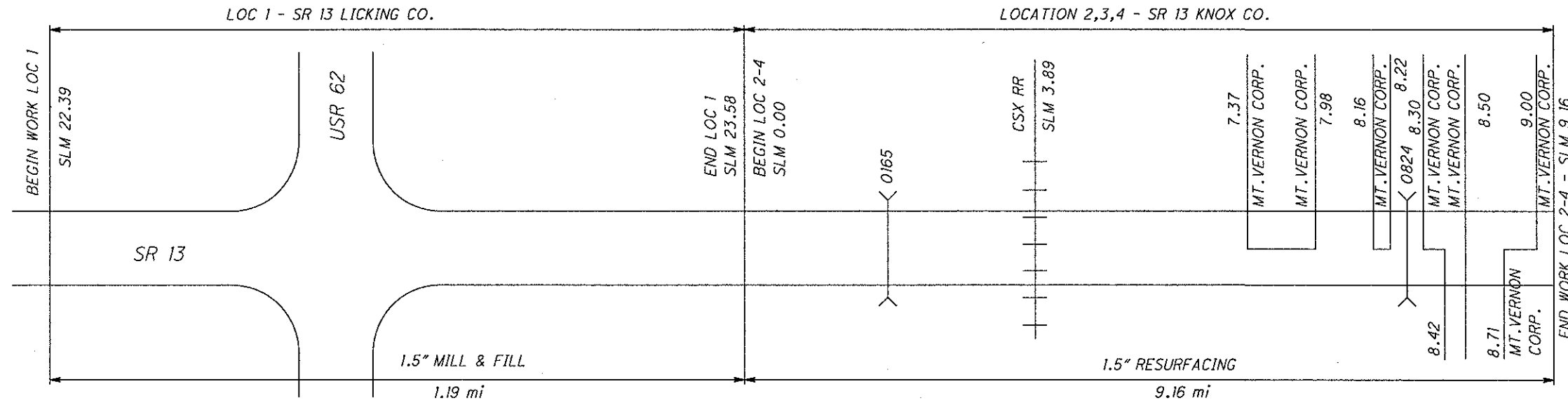
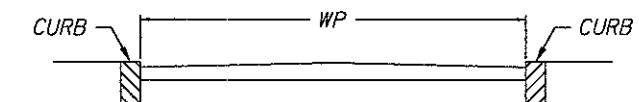
TYPICAL 1

ASPHALT CONCRETE

TYPICAL 2



PAVEMENT WIDTHS ARE AVERAGE THROUGHOUT SECTIONS



PAVEMENT DATA

L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T	E N D L O G P O I N T	L E N G T H		P A V E M E N T W I D T H (F E E T)	T Y P I C A L	E X I S T I N G P A V E M E N T T Y P E	P A V E M E N T A R E S Q. Y D.	407		442 ASPHALT CONCRETE		254	614
					M I L E S	L I N. F T.					T A C K C O A T @ 0.075 g a l. /S. Y.	D E P T H I N C H E S	S U R F A C E C O U R S E, 12.5mm, T Y P E A (448), A. P. P	P A V E M E N T P L A N I N G, A S P H A L T C O N C R E T E, A. P. P.	W O R K Z O N E C E N T E R L I N E, C L A S S I I	
											G A L.		C U. Y D.	S Q. Y D.	M I L E	
1	LIC	SR 13	22.39	22.55	0.16	844.8	24.0	1	404	2252.8	169.0	1.5	93.9	2252.8	0.32	
1	LIC	SR 13	22.55	22.80	0.25	1320.0	31.0	2	404	4546.7	341.1	1.5	189.5	4546.7	0.50	
1	LIC	SR 13	22.80	22.95	0.15	792.0	32.0	2	404	2816.0	211.2	1.5	117.4	2816.0	0.30	
1	LIC	SR 13	22.95	23.25	0.30	1584.0	28.0	2	404	4928.0	369.6	1.5	205.4	4928.0	0.60	
1	LIC	SR 13	23.25	23.58	0.33	1742.4	28.0	2	404	5420.8	406.6	1.5	225.9	5420.8	0.66	
1	LIC	SR 13	TOTALS CARRIED TO SHEET 19								1497.5			832.1	19964.3	2.38
2	KNO	SR 13	0.00	7.37	7.37	38913.6	24.0	1	404	103769.6	7782.8	1.5	4323.8		7.37	
2	KNO	SR 13	7.98	8.16	0.18	950.4	24.0	1	404	2534.4	190.1	1.5	105.6		0.18	
2	KNO	SR 13	8.22	8.30	0.08	422.4	24.0	1	404	1126.4	84.5	1.5	47.0		0.08	
2	KNO	SR 13	8.50	8.71	0.21	1108.8	24.0	1	404	2956.8	221.8	1.5	123.2		0.21	
2	KNO	SR 13	TOTALS CARRIED TO SHEET 19								8279.2			4599.6		7.84
3	KNO	SR 13	7.37	7.98	0.61	3220.8	24.0	1	404	8588.8	644.2	1.5	357.9		0.61	
3	KNO	SR 13	8.16	8.22	0.06	316.8	24.0	1	404	844.8	63.4	1.5	35.2		0.06	
3	KNO	SR 13	8.30	8.42	0.12	633.6	24.0	1	404	1689.6	126.8	1.5	70.4		0.12	
3	KNO	SR 13	8.71	9.00	0.29	1531.2	24.0	1	404	4083.2	306.3	1.5	170.2		0.29	
3	KNO	SR 13	TOTALS CARRIED TO SHEET 20								1140.7			633.7		1.08
4	KNO	SR 13	8.42	8.50	0.08	422.4	24	1	404	1126.4	84.5	1.5	47.0		0.08	
4	KNO	SR 13	9.00	9.16	0.16	844.8	24	1	404	2252.8	169.0	1.5	93.9		0.16	
4	KNO	SR 13	TOTALS CARRIED TO SHEET 21								253.5			140.9		0.24

L01300macl.dgn Date 05/18/07

CALCULATED
BCT

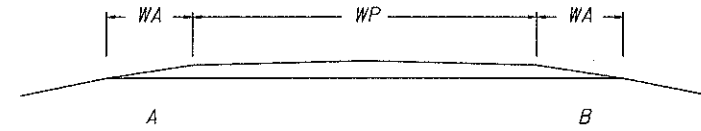
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DNM

ASPHALT CONCRETE DATA

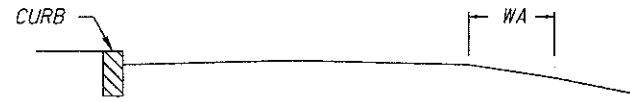
LIC-13-22.39
KNO-13-0.00

SHOULDER TREATMENT

TYPICAL 1



TYPICAL 2



TYPICAL 3



SHOULDER DATA

L O C A T I O N	C O U N T Y	R O U T E	B E G I N L O G P O I N T	E N D L O G P O I N T	L E N G T H		T Y P I C A L	P R O P O S E D W I D T H (F T.)				S H O U L D E R A R E S Q. Y D.	407		442 ASPHALT CONCRETE			617		254	
					M I L E S	L I N. F T.		A	B	C	D		T A C K C O A T @ 0.075 G A L. /S Q. Y D.		D E P T H	S U R F A C E C O U R S E, 12.5MM, T Y P E A (448), A.P.P.		A V G. D E P T H	C O M P A C T E D A G G R E G A T E, A S P E R P L A N (2' AVERAGE W I D T H)		P A V E M E N T P L A N I N G, A S P H A L T C O N C R E T E, A S P E R P L A N
													G A L.		I N.	C U. Y D.		I N.	C U. Y D.	S Q. Y D.	
1	LIC	SR 13	22.39	22.55	0.16	844.8	1	5	4			844.8	63.4		1.5	35.2			844.8		
1	LIC	SR 13	23.50	23.58	0.08	422.4	1	2	2			187.7	14.1		1.5	7.9			187.7		
1	LIC	SR 13	TOTALS CARRIED TO SHEET 19										77.5				43.1			1032.5	
2	KNO	SR 13	0.00	7.37	7.37	38913.6	1	2	2			17294.9	1297.2		1.5	720.7		2.0	960.9		
2	KNO	SR 13	7.98	8.16	0.18	950.4	1	2	2			422.4	31.7		1.5	17.6		2.0	23.5		
2	KNO	SR 13	8.22	8.30	0.08	422.4	1	2	2			187.7	14.1		1.5	7.9		2.0	10.5		
2	KNO	SR 13	8.50	8.55	0.05	264.0	1	2	5			205.3	15.4		1.5	8.6		2.0	6.6		
2	KNO	SR 13	8.55	8.71	0.16	844.8	1	2	2			375.5	28.2		1.5	15.7		2.0	20.9		
2	KNO	SR 13	TOTALS CARRIED TO SHEET 19										1386.6				770.5			1022.4	
3	KNO	SR 13	7.37	7.98	0.61	3220.8	1	2	2			1431.5	107.4		1.5	59.7		2.0	79.6		
3	KNO	SR 13	8.16	8.22	0.06	316.8	1	2	2			140.8	10.6		1.5	5.9		2.0	7.9		
3	KNO	SR 13	8.30	8.38	0.08	422.4	1	2	2			187.7	14.1		1.5	7.9		2.0	10.5		
3	KNO	SR 13	8.38	8.41	0.03	158.4	1	2	10			211.2	15.9		1.5	8.8		2.0	4.0		
3	KNO	SR 13	8.41	8.42	0.01	52.8	1	13	10			134.9	10.2		1.5	5.7		2.0	1.4		
3	KNO	SR 13	8.71	9.00	0.29	1531.2	1	2	2			680.5	51.1		1.5	28.4		2.0	37.9		
3	KNO	SR 13	TOTALS CARRIED TO SHEET 20										209.3				116.4			141.3	
4	KNO	SR 13	8.42	8.44	0.02	105.6	1	13	10			269.9	20.3		1.5	11.2		2.0	2.7		
4	KNO	SR 13	8.44	8.46	0.02	105.6	1	2	10			140.8	10.6		1.5	5.9		2.0	2.7		
4	KNO	SR 13	8.46	8.49	0.03	158.4	1	2	2			70.4	5.3		1.5	2.9		2.0	4.0		
4	KNO	SR 13	8.49	8.50	0.01	52.8	1	2	5			41.1	3.1		1.5	1.7		2.0	1.4		
4	KNO	SR 13	9.00	9.16	0.16	844.8	1	2	2			375.5	28.2		1.5	15.6		2.0	20.9		
4	KNO	SR 13	TOTALS CARRIED TO SHEET 21										67.5				37.3			31.7	

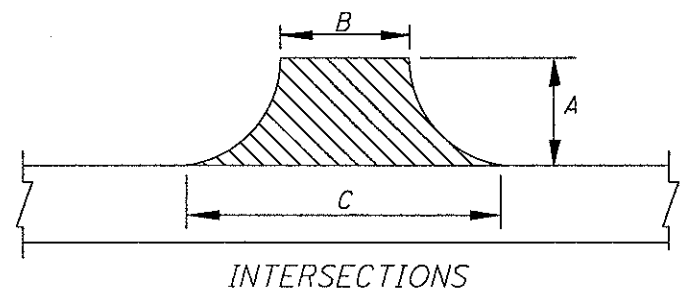
L01300mst1.dgn Date 05/18/07

PAVED SHOULDER DATA

LIC-13-22.39
KNO-13-0.00

CALCULATED
BCT
CHECKED
DMM

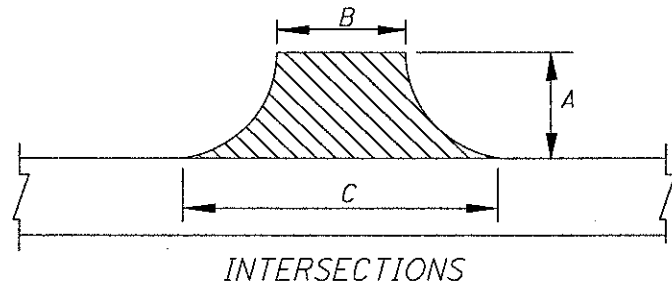
EXTRA AREAS



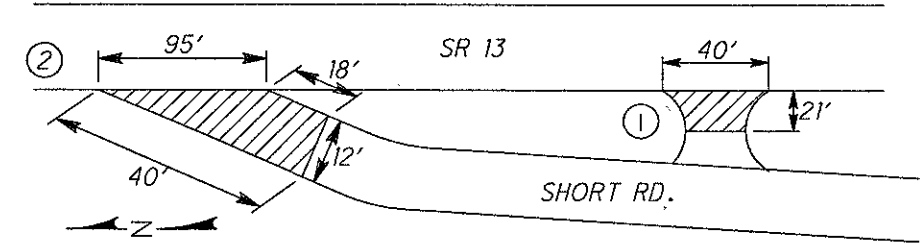
PAVEMENT DATA																	
L O C A T I O N	C O U N T Y	R O U T E	S I D E	D E S C R I P T I O N	I N T E R S E C T I O N S			A R E A	407			442 ASPHALT CONCRETE			202		
					D E T A I L D I M E N S I O N				T A C K C O A T @ 0.075 G A L. / S Q. Y D.	D E P T H	S U R F A C E C O U R S E 12.5 M M, T Y P E A (448), A.P.P.	W E A R I N G C O U R S E R E M O V E D					
					A	B	C						S Q. Y D.	G A L.	I N.	C U. Y D.	S Q. Y D.
					FT	FT	FT						SQ. YD.	GAL.	IN.	CU. YD.	SQ. YD.
1	LIC	SR 13	RT	BLACKSNAKE RD.	33	21	52	133.9	10.1		1.5	5.6		133.9			
1	LIC	SR 13	RT	MILL ST.	10	31	43	41.2	3.1		1.5	1.8		41.2			
1	LIC	SR 13	RT	ALLEY	12	13	20	22.0	1.7		1.5	1.0		22.0			
1	LIC	SR 13	LT	ALLEY	10	12	20	17.8	1.4		1.5	0.8		17.8			
1	LIC	SR 13	LT	ALLEY	12	8	18	17.4	1.4		1.5	0.8		17.4			
1	LIC	SR 13	RT	ALLEY	12	14	22	24.0	1.8		1.5	1.0		24.0			
1	LIC	SR 13	LT	ALLEY	10	22	30	28.9	2.2		1.5	1.3		28.9			
1	LIC	SR 13	RT	SPRING ST.	10	22	42	35.6	2.7		1.5	1.5		35.6			
1	LIC	SR 13	LT	ALLEY	10	21	28	27.3	2.1		1.5	1.2		27.3			
1	LIC	SR 13	LT	ALLEY	14	11	28	30.4	2.3		1.5	1.3		30.4			
1	LIC	SR 13	RT	ALLEY	13	14	21	25.3	1.9		1.5	1.1		25.3			
1	LIC	SR 13	LT	ALLEY	12	15	22	24.7	1.9		1.5	1.1		24.7			
1	LIC	SR 13	RT	ALLEY	12	12	22	22.7	1.8		1.5	1.0		22.7			
1	LIC	SR 13	LT	ALLEY	12	14	22	24.0	1.8		1.5	1.0		24.0			
1	LIC	SR 13	RT	CHURCH ST.	15	28	54	68.4	5.2		1.5	2.9		68.4			
1	LIC	SR 13	LT	ALLEY	15	12	15	22.5	1.7		1.5	1.0		22.5			
1	LIC	SR 13	LT	ALLEY	13	13	27	28.9	2.2		1.5	1.3		28.9			
1	LIC	SR 13	RT	MAPLE AVE.	14	24	44	52.9	4.0		1.5	2.3		52.9			
1	LIC	SR 13	RT	NORTH ST.	23	28	63	116.3	8.8		1.5	4.9		116.3			
1	LIC	SR 13	RT	CRESTVIEW DR.	20	17	37	60.0	4.5		1.5	2.5		60.0			
1	LIC	SR 13	LT	KIRKPATRICK RD.	75	12	96	450.0	33.8		1.5	18.8		450.0			
1	LIC	SR 13		TOTALS CARRIED TO SHEET 19					96.4			54.2		1274.2			

EXTRA AREAS DATA

LIC-13-22.39
KNO-13-0.00



EXTRA AREAS



PAVEMENT DATA												
L O C A T I O N	C O U N T Y	R O U T E	S I D E	D E S C R I P T I O N	INTERSECTIONS			A R E A	407		442 ASPHALT CONCRETE	
					D E T A I L D I M E N S I O N				T A C K C O A T @ 0.075 G A L. / S Q. Y D.	D E P T H	S U R F A C E C O U R S E 12.5 M M, T Y P E A (448), A. P. P.	
					A	B	C					
					F T	F T	F T					S Q. Y D.
2	KNO	SR 13	LT	VANCER RD. - CR 29	30	22	64	143.4	10.8	1.5	6.0	
2	KNO	SR 13	LT	TUMA RD. - TR 140	58	16	89	338.4	25.4	1.5	14.1	
2	KNO	SR 13	RT	ARRINGTON RD. - CR 30	30	20	71	151.7	11.4	1.5	6.4	
2	KNO	SR 13	LT	SHORT RD. - TR 427 (DETAIL 1)	21	16	40	65.4	5.0	1.5	2.8	
2	KNO	SR 13	LT	SHORT RD. - TR 427 (DETAIL 2)	SEE DETAIL ABOVE			173.0	13.0	1.5	7.3	
2	KNO	SR 13	RT	SHORT RD. - TR 427	26	16	49	93.9	7.1	1.5	4.0	
2	KNO	SR 13	LT	TULLOSS RD. - TR 138	35	22	62	163.4	12.3	1.5	6.9	
2	KNO	SR 13	RT	TULLOSS RD. - TR 138	30	22	70	153.4	11.6	1.5	6.4	
2	KNO	SR 13	RT	MORGAN CENTER RD. - CR 28	85	20	140	755.6	56.7	1.5	31.5	
2	KNO	SR 13	RT	SYCAMORE RD. - CR 27	35	20	87	208.1	15.7	1.5	8.7	
2	KNO	SR 13	LT	SYCAMORE RD. - CR 27	30	20	83	171.7	12.9	1.5	7.2	
2	KNO	SR 13	LT	ESTHER LN. - TR 137	20	11	33	48.9	3.7	1.5	2.1	
2	KNO	SR 13	RT	ROAD AT BOWLING CENTER	35	18	93	215.9	16.2	1.5	9.0	
2	KNO	SR 13	RT	MURRAY RD. - CR 64	60	19	116	450.0	33.8	1.5	18.8	
2	KNO	SR 13	LT	RANGE LINE RD. - CR 57	55	22	116	421.7	31.7	1.5	17.6	
2	KNO	SR 13	RT	BROOKWOOD RD. - TR 611	30	16	68	140.0	10.5	1.5	5.9	
2	KNO	SR 13	LT	WINNEY DR.	40	19	75	208.9	15.7	1.5	8.8	
2	KNO	SR 13	RT	SOUTHRIDGE RD.	30	19	70	148.4	11.2	1.5	6.2	
2	KNO	SR 13	RT	CLUB DR. - TR 610	40	20	83	228.9	17.2	1.5	9.6	
2	KNO	SR 13	RT	MILLSTONE LN.	25	22	73	132.0	9.9	1.5	5.5	
2	KNO	SR 13	RT	LAKEVIEW DR.	25	16	70	119.5	9.0	1.5	5.0	
2	KNO	SR 13	RT	GLEN RD. - TR 257	30	16	82	163.4	12.3	1.5	6.9	
2	KNO	SR 13		TOTALS CARRIED TO SHEET 19					353.1		196.7	
4	KNO	SR 13	LT	BLACKJACK RD. - SR 661	40	26	100	280.0	21.0	1.5	11.7	
4	KNO	SR 13	LT	INDUSTRIAL PARK DR.	30	30	100	216.7	16.3	1.5	9.1	
4	KNO	SR 13	LT	PROGRESS DR.	37	28	105	273.4	20.6	1.5	11.4	
4	KNO	SR 13	RT	DIXIE DR.	40	20	92	248.9	18.7	1.5	10.4	
4	KNO	SR 13	LT	GREENWAY DR.	30	16	60	126.7	9.6	1.5	5.3	
4	KNO	SR 13	LT	MELICK ST.	30	20	78	163.4	12.3	1.5	6.9	
4	KNO	SR 13		TOTALS CARRIED TO SHEET 21					98.5		54.8	

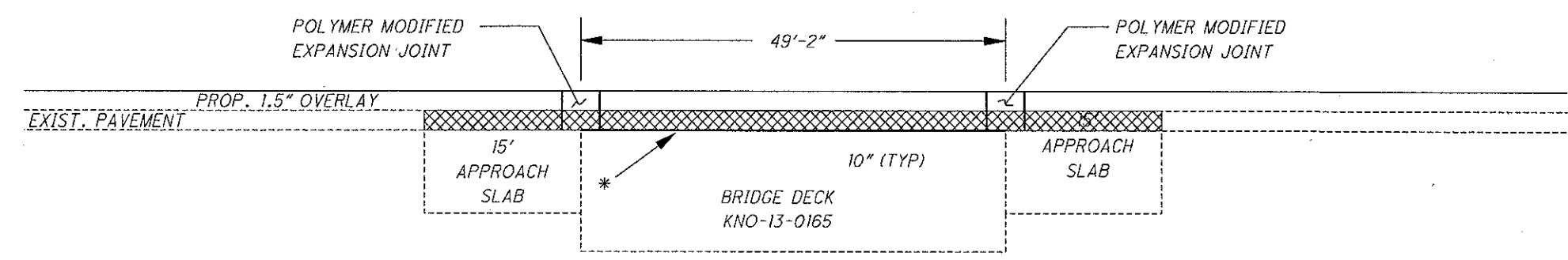
L01300mea2.dgn Date 05/18/07

CALCULATED
BCT
CHECKED
DMM

EXTRA AREAS DATA

LIC-13-22.39
KNO-13-0.00

DETAIL 1

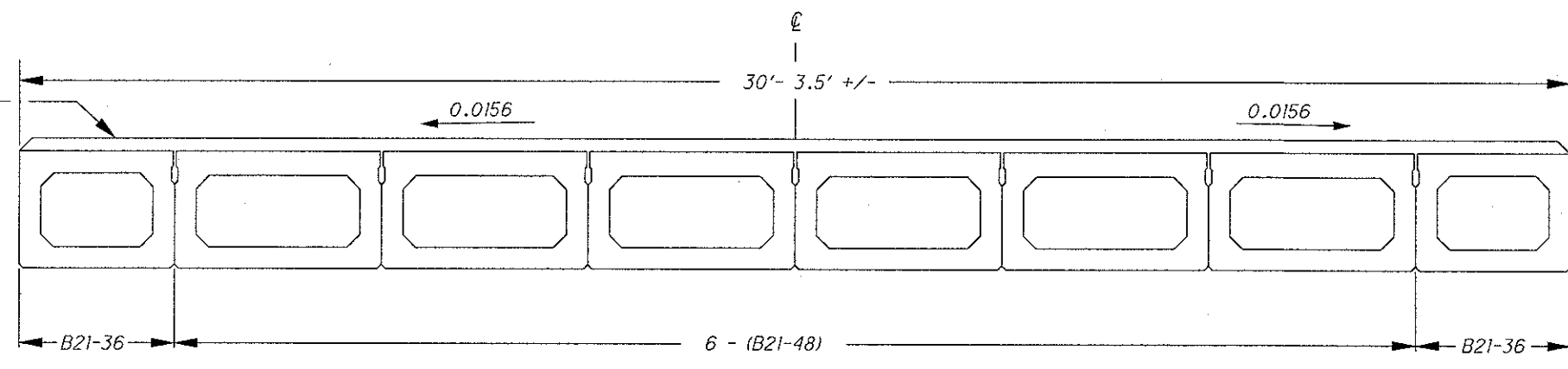


NOTE: CARE SHALL BE TAKEN WHEN REMOVING ASPHALT CONCRETE SO AS NOT TO DAMAGE BOX BEAMS. ASPHALT DEPTH ON DECK VARIES FROM 2.5" TO 4.25" IN DEPTH. ANY DAMAGE THAT OCCURS TO THE EXISTING BOX BEAMS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE ENGINEER, AS PER CMS 519 OR SS 843.

- 202 WEARING COURSE REMOVED

* - TYPE D WATERPROOFING SHALL BE STOPPED 10" (INCHES) FROM EACH APPROACH SLAB TO ALLOW FOR INSTALLATION OF A POLYMER MODIFIED EXPANSION JOINT SYSTEM.

ASPHALT CONC. WEARING SURFACE
2.5"± AT MIDSPAN
4.25"± AT BEARINGS



TRANSVERSE SECTION

ITEM 202 - WEARING COURSE REMOVED
 $[2(115' \times (22'+6')) + (15' \times 30)] / 9 = 263.3 \text{ SQ. YD.}$

ITEM 512 - TYPE D WATERPROOFING
 $30.29' \times (49.17' - 2(10'/12)) = 1438.9 \text{ SQ. FT.}$
 $1438.9 \text{ SQ. FT.} / 9 = 159.9 \text{ SQ. YD.}$

ITEM 518 - SPECIAL - STEEL DRIP STRIP
 $(2(49.17' + 8(1.5')) = 122.3 \text{ FT}$

QUANTITIES CARRIED TO SHEET 12 OF 22

L01300mbt2.dgn Date 05/18/07

BRIDGE DECK DETAILS

LIC-13-22.39
KNO-13-0.00

LOCATION 1

NO STRUCTURES

LOCATION 2

KNO-13-0165: WEARING COURSE REMOVED, INSTALL WATERPROOFING AND POLYMER MODIFIED EXPANSION JOINT, RESURFACE (SURFACE COURSE QUANTITIES INCLUDED IN ROADWAY CALCULATIONS ON SHEETS 7 & 8).

KNO-13-0334: PAVE OVER, SAME AS ROADWAY (RESURFACING QUANTITIES INCLUDED WITH ROADWAY CALCULATIONS ON SHEETS 7 & 8).

KNO-13-0824: PAVE OVER, SAME AS ROADWAY (RESURFACING QUANTITIES INCLUDED WITH ROADWAY CALCULATIONS ON SHEETS 7 & 8).

LOCATION 3

NO STRUCTURES

LOCATION 4

KNO-13-0843: PAVE OVER, SAME AS ROADWAY (RESURFACING QUANTITIES INCLUDED WITH ROADWAY CALCULATIONS ON SHEETS 7 & 8).

NOTES

1). THERE ARE NO ROADWAY DEDUCTIONS FOR STRUCTURES.

2). THERE IS NO INTERMEDIATE COURSE INCLUDED IN THE PLANS FOR STRUCTURE LIC-13-0165. ONCE THE CONTRACTOR HAS APPLIED THE NEW TYPE D WATERPROOFING, HE/SHE SHALL RESURFACE THE STRUCTURE USING ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448) AS PER PLAN IN MULTIPLE LIFTS. THE MAXIMUM LIFT THICKNESS SHALL BE 2-1/2 INCHES. THE 1-1/2 INCH OVERLAY SHALL BE PLACED IN A CONTINUOUS OPERATION AND SHALL NOT BE INCLUDED IN THE BRIDGE WORK.

ITEM 202 WEARING COURSE REMOVED, AS PER PLAN

THE CONTRACTOR SHALL TAKE SPECIAL CARE IN REMOVING THE ASPHALT CONCRETE FROM THE TOP OF THE BOX BEAMS, SO AS NOT DAMAGE THE BOX BEAMS. ANY DAMAGE DONE TO THE EXISTING BOX BEAMS BY THE CONTRACTOR SHALL BE REPAIRED AT HIS/HER EXPENSE. DUE TO THE CAMBER IN THE BOX BEAMS, THE ASPHALT IS (1 3/4") THICKER AT THE BRIDGE ABUTMENTS. AFTER THE ASPHALT IS REMOVED, THE CONTRACTOR SHALL REMOVE THE EXISTING TYPE D WATERPROOFING AND STEEL DRIP STRIP. ALL LABOR, TOOLS, MATERIALS AND INCIDENTALS NECESSARY TO REMOVE THE ASPHALT CONCRETE, TYPE D WATERPROOFING AND STEEL DRIP STRIP SHALL BE INCLUDED FOR PAYMENT IN ITEM 202 WEARING COURSE REMOVED, AS PER PLAN.

BRIDGE DECK DATA

L O C A T I O N	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS) LIN.FT.	WIDTH LIN. FT.	202		DESCRIPTION	407		442 ASPHALT CONCRETE			512	SPECIAL
				WEARING COURSE REMOVED, A.P.P.	AREA		TACK COAT @ 0.075 GAL./SQ.YD.	TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL./SQ. YD.	DEPTH	SURFACE COURSE, 12.5 mm, TYPE A (448), A.P.P.	TYPE D WATER- PROOFING	STEEL DRIP STRIP	
													SQ. YD.
2	KNO-13-0165	49.2	30.3	165.7	263.3	DETAIL 1 (SHEET 11)	12.5		3.375	15.6		159.9	122.3
	KNO-13-0334	NO ADDITIONAL WORK											
	KNO-13-0824	NO ADDITIONAL WORK											
4	KNO-13-0843	NO ADDITIONAL WORK											
QUANTITIES CARRIED TO SHEET 19					263.3		12.5			15.6		159.9	122.3

LO1300MBT1.dgn Date 05/18/07

BRIDGE DECK DATA

LIC-13-22.55
KNO-13-0.00

GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM WILL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR WILL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING APPROVED APPLICATORS WHO WILL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

PRODUCT NAME	SUPPLIER	ADDRESS	PHONE NO.
THORMA-JOINT	DYNAMIC SURFACE APPLICATIONS, LTD	373 VILLAGE RD. PENNSDALE, PA 17756	(570)546-6041
MATRIX 502	CRAFCO INC.	420 N. ROOSEVELT AVE. CHANDLER, AZ 85226	(800)528-8242
EXPANDEX JOINT SYSTEM	WATSON-BOWMAN ACME	95 PINEVIEW DR. AMHERST, NY 14228	(716)691-7566
APJ ASPHALTIC PLUG EXPANSION JOINT	WYOMING EQUIPMENT SALES	281 SIXTH STREET P.O. BOX 287 WEST WYOMING, PA 18644	(570)693-2810

MATERIALS:

BRIDGING PLATE:

MILD STEEL 1/8" OR 1/4" THICK PLATE, 8" WIDE OR 18 GAUGE ALUMINUM, 8" WIDE.

BINDER:

TYPE: POLYMER MODIFIED ASPHALT
SOFTENING POINT: 180 DEGREES F. MIN.
FLOW: 3 mm. MAX. AT 140 DEGREES F.
PENETRATION: 9 mm. MAX. AT 77 DEGREES F. 1 mm. MIN AT 0 DEGREES F. ASTM D 3407
DUCTILITY: 40 cm. MIN. ASTM D 113
RESILIENCE: 60% MIN. AT 77 DEGREES F.
TENSILE ADHESION: 700% MIN.
SPECIFIC GRAVITY: 1.10 * 0.05
POURING TEMP: 350 - 390 DEGREES F.

AGGREGATE:

TYPE: CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT
GRADATION: THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND WILL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT.

BACKER ROD:

THE BACKER SHALL BE A CLOSED CELL FOAM EXPANSION JOINT FILLER CAPABLE OF WITHSTANDING THE PLACEMENT TEMPERATURE OF THE POLYMER MODIFIED ASPHALT.

NOTE: PRIOR TO PLACEMENT OF ANY PORTION OF THE JOINT SYSTEM, THE PROJECT ENGINEER MUST HAVE CERTIFIED TEST DATA MEETING ALL THE MINIMUM REQUIREMENTS OF ALL THE MATERIALS OF THE JOINT SYSTEM.

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETE, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH NO LESS THAN TWO INCHES DEEP (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). REMOVE ALL MATERIAL, INCLUDING WATER-PROOFING MATERIAL, BETWEEN SAW CUTS. THOROUGHLY CLEAN AND DRY EXPOSED CONCRETE, STEEL, AND CUT SURFACES USING COMPRESSED AIR AND A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE MUST PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER

SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE BINDER COAT OPERATION. ALSO, 6 INCHES OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

SEALING OF EXPANSION JOINT: (PRE-STRESSED BOX OR CONCRETE SLAB)

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE CENTERED ALONG IT. A VERY NARROW GAP WILL BE SEALED BY POURING HOT BINDER INTO THE GAP. GAPS OF 1/8" OR MORE WILL FIRST BE FILLED WITH AN APPROPRIATELY SIZED BACKER ROD. THE BACKER ROD WILL BE INSTALLED SO THAT IT IS BETWEEN 1/8" AND 1/4" BELOW THE TOP OF THE EXISTING GAP. THE GAP WILL THEN BE FILLED WITH BINDER.

BOND BREAKER:

SPREAD BINDER OVER SURFACE AREA WHERE THE METAL BRIDGING PLATE WILL BE PLACED. CENTER THE BRIDGING PLATE OVER THE EXISTING JOINT AND BED INTO THE HOT BINDER. BUTT JOINT THE BRIDGING PLATES TO ACCOMMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES WILL BE DRILLED AT 1 FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE OF THE PLATES. SECURE BRIDGING PLATE WITH NAILS OR SPIKES. SEAL BUTT JOINTS WITH HOT BINDER AND ALLOW BINDER TO SETUP BEFORE NEXT OPERATION. WHEN ALUMINUM BRIDGING PLATES ARE USED, ONLY THE BINDER IS REQUIRED TO SECURE THE INDIVIDUAL PLATES.

BINDER COAT:

SEAL ALL PREPARED, EXPOSED SURFACES OF THE JOINT WITH BINDER. POUR THE HOT BINDER OVER THE FLOOR AREA OF THE JOINT AND SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER WILL BE A MINIMUM OF 1/32" THICK ON THE BOTTOM OF THE JOINT CAVITY, WITH POOLS OF GREATER THICKNESS WHERE SURFACE IRREGULARITIES EXIST. THE BINDER APPLICATION TEMPERATURE WILL BE BETWEEN 350 AND 390 DEGREES F. THE BINDER WILL NOT BE ALLOWED TO BE HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO EXCEED 390 DEGREES F. FOR MORE THAN 1 HOUR. A DOUBLE JACKETED OIL MELTER WILL BE USED TO HEAT THE BINDER. THE MELTER WILL BE EQUIPPED WITH A CONTINUOUS AGITATION SYSTEM, TEMPERATURE CONTROLS, AND A CALIBRATED THERMOMETER. ALSO A SYSTEM FOR ACCURATELY MEASURING THE WEIGHTS OF THE BINDER AND THE AGGREGATE WILL BE REQUIRED.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

HEAT THE AGGREGATE TO A TEMPERATURE OF 275 TO 325 DEGREES F., WITH A SUITABLE ROTATING DRUM WITH ATTACHED HEAT SOURCE OR A HOT COMPRESSED AIR LANCE, TO REMOVE DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

MIX THE AGGREGATE WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT WILL BE 68%. THE HEATED AGGREGATE AND BINDER WILL BE COMBINED IN LAYERS, UNLESS PATENTED INSTALLATION REQUIRES DIFFERENTLY, NOT LESS THAN 3/4" OF AN INCH NOR EXCEEDING 2-1/2 INCHES. THE THICKNESS OF EACH LAYER CAN BE VARIED WITHIN THESE LIMITS, TO ACHIEVE THE REQUIRED JOINT THICKNESS (MIN. 2 INCHES). THE OBJECTIVE IS TO COAT EACH STONE AND FILL THE VOIDS WHILE AVOIDING AN EXCESS OF BINDER. THIS WILL ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTENT WITH ALL STONES BEING COATED WITH BINDER. RAKE THE MIXTURE TO MIX AND LEVEL.

THE TOP LAYER THICKNESS WILL VARY BETWEEN 1/2 INCH AND ONE (1) INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER WILL BE APPROXIMATELY 6:1 BY WEIGHT. OVERFILL THE TOP LAYER AND COMPACT TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, POUR SUFFICIENT BINDER OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. DUST THE FINISHED JOINT WITH A FINE, DRY AGGREGATE TO PREVENT TACKINESS.

MAINTENANCE OF TRAFFIC:

IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE, THE JOINT WILL BE INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE 1 APPROXIMATELY HALF OF THE TOTAL JOINT WILL BE INSTALLED. DURING PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE 1 JOINT WILL BE REMOVED, AT OR NEAR THE CENTERLINE, WITH THE REMAINDER OF THE JOINT INSTALLED. IN ALL CASES, OPERATIONS WILL BE SCHEDULED SO THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

TESTING:

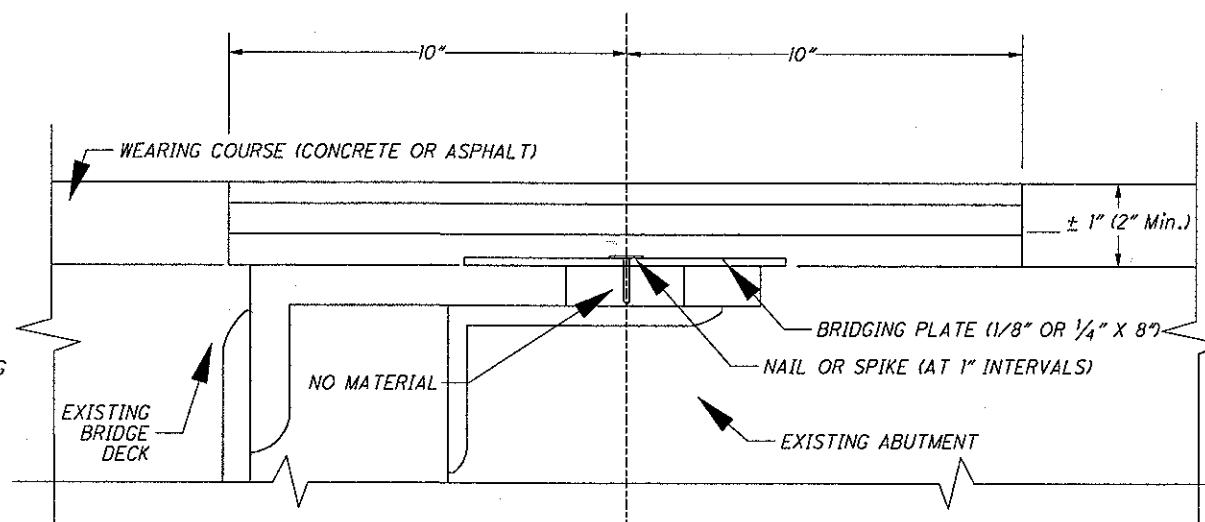
CERTIFICATION WILL BE SUPPLIED FOR EACH PROJECT SHOWING BINDER COMPLIANCE WITH REQUIRED PROPERTIES. A ONE QUART SAMPLE OF BINDER WILL BE RETRIEVED FROM EACH BRIDGE FOR FURTHER TESTING BY THE O.D.O.T OFFICE OF MATERIALS MANAGEMENT.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT:

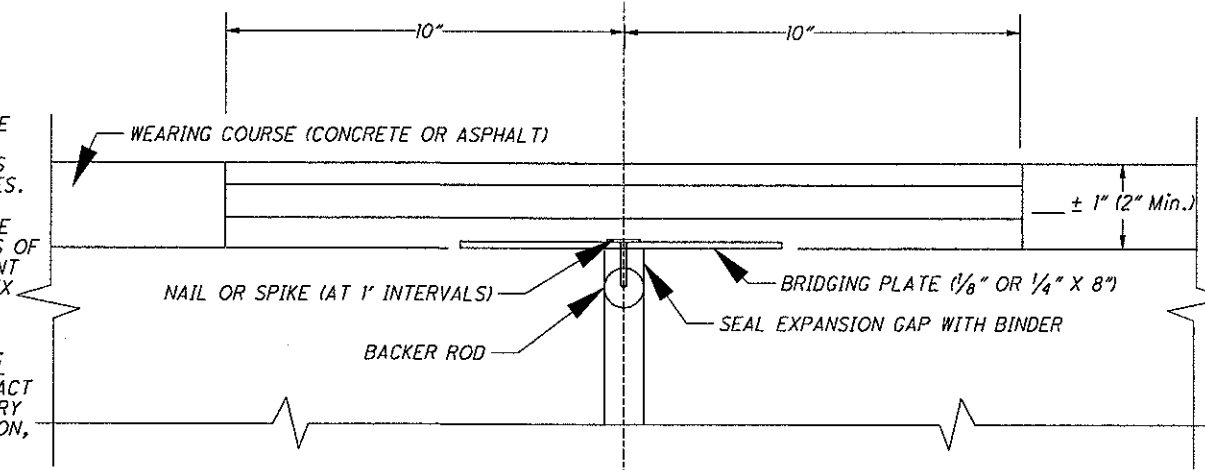
THE DEPARTMENT WILL MEASURE THE JOINT BY THE NUMBER OF FEET AND WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL, FEET, POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM.

THE DEPARTMENT WILL MEASURE THE JOINT BY THE NUMBER OF CUBIC YARDS AND WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE AS: ITEM SPECIAL, CUBIC YARD, POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM.

DESIGNER TO USE ONLY ONE AND MODIFY SHEET ACCORDINGLY.



TYPICAL STEEL BEAM EXPANSION JOINT



TYPICAL PRESTRESSED BOX BEAM OR CONCRETE SLAB JOINT

poly_joint_v8.dgn Date 05/18/07

OFFICE OF STRUCTURAL ENGINEERING

CHECKED DMM REVIEWED JLS

POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

LIC-13-22-39
KNO-13-0.00

13
22

DETAIL	SEE STANDARD DRAWING TC-65.11
1	ENTRANCE RAMP
2	EXIT RAMP
3	MULTILANE DIVIDED HIGHWAY
4	4-LANE DIVIDED TO 2-LANE TRANSITION

DETAIL	SEE STANDARD DRAWING TC-65.11
5	4-LANE UNDIVIDED TO 2-LANE TRANSITION
6	ONE LANE BRIDGE
7	STOP APPROACH
8	THRU APPROACH

DETAIL	SEE STANDARD DRAWING TC-65.11
9	TWO WAY LEFT TURN LANE
10	APPROACH W/LEFT TURN LANE
11	HORIZONTAL CURVE 40' (NOTE 6)
12	HORIZONTAL CURVE 20' (NOTE 6)
GAP	CENTERLINE AT 80' TYP.

NOTE: DETAIL 12 REQUIRES 12 RPM'S AT 40' SPACING ON EITHER SIDE OF THE 20' SPACING. THEREFORE 6 ADDITIONAL RPM'S HAVE BEEN PROVIDED FOR EITHER SIDE OF THE 20' SPACING IN ORDER TO REDUCE THE SPACING FROM 80' TO 40'.

RPM LOCATION SUB-SUMMARY

L O C A T I O N	C O U N T Y	R O U T E	BEGIN LOG POINT SLM	END LOG POINT SLM	LENGTH		D E T A I L	621 ITEM QUANTITIES RPM EACH	PRISMATIC RETRO-REFLECTOR COLORS					REMARKS
					MILES	LIN.FT.			ONE-WAY		TWO-WAY			
									WHITE	YELLOW	YELLOW / YELLOW	WHITE / RED	YELLOW / RED	
NO RPM'S FOR LOCATION 1														
2	KNO	SR 13	0.00	3.72	3.72	19642	GAP	247			247			
2	KNO	SR 13	3.72	3.94	0.22	1162	12	36			36			PC 3.81 TO PT 3.85, L=211 FT, 11 DEGREES
2	KNO	SR 13	3.94	6.94	3	15840	GAP	199			199			
2	KNO	SR 13	6.94	7.00	0.06	317	11	9			9			PC 6.941 TO PT 7.00, L=317 FT, 5 DEGREES
2	KNO	SR 13	7.00	7.37	0.37	1954	GAP	26			26			
2	KNO	SR 13	7.98	8.16	0.18	950	GAP	13			13			
2	KNO	SR 13	8.22	8.30	0.08	422	GAP	7			7			
2	KNO	SR 13	8.50	8.71	0.21	1109	GAP	15			15			
LOCATION 2 TOTALS CARRIED TO SHEET 19								552			552			
3	KNO	SR 13	7.37	7.98	0.61	3221	GAP	42			42			
3	KNO	SR 13	8.16	8.22	0.06	317	GAP	5			5			
3	KNO	SR 13	8.30	8.42	0.12	634	GAP	9			9			
3	KNO	SR 13	8.71	9.00	0.29	1531	GAP	21			21			
LOCATION 3 TOTALS CARRIED TO SHEET 20								77			77			
4	KNO	SR 13	8.42	8.50	0.08	422	GAP	7			7			
4	KNO	SR 13	9.00	9.16	0.16	845	GAP	12			12			STOP AT MELICK STREET IN MOUNT VERNON
LOCATION 4 TOTALS CARRIED TO SHEET 21								19			19			

RPM LOCATION SUB-SUMMARY

LIC-13-22-39
KNO-13-0.00

LO1300tcell.dgn Date 05/18/07

ITEM 642 FAST DRY CENTER LINE SUB-SUMMARY								
L O C A T I O N	C O U N T Y	R O U T E	SLM		CENTER LINE QUANTITIES		TOTAL CENTER LINE MILES	R E M A R K S
			FROM	TO	TOTAL MILES	EQUIVALENT SOLID LINE		
			1	LIC	SR 13	22.39	23.58	
LOCATION 1 TOTALS CARRIED TO SHEET 19							2.38	
2	KNO	SR 13	0.00	7.37	7.37	9.88	9.88	KNOX COUNTY LINE TO MOUNT VERNON SOUTH CORP.
2	KNO	SR 13	7.98	8.16	0.18	0.25	0.25	BOTH LANES OUTSIDE MOUNT VERNON CORP.
2	KNO	SR 13	8.22	8.30	0.08	0.11	0.11	BOTH LANES OUTSIDE MOUNT VERNON CORP.
2	KNO	SR 13	8.50	8.71	0.21	0.29	0.29	BOTH LANES OUTSIDE MOUNT VERNON CORP.
LOCATION 2 TOTALS CARRIED TO SHEET 19							10.53	
3	KNO	SR 13	7.37	7.98	0.61	0.82	0.82	SB LANE - MOUNT VERNON / NB LANE - ODOT
3	KNO	SR 13	8.16	8.22	0.06	0.09	0.09	SB LANE - MOUNT VERNON / NB LANE - ODOT
3	KNO	SR 13	8.30	8.42	0.12	0.17	0.17	SB LANE - MOUNT VERNON / NB LANE - ODOT
3	KNO	SR 13	8.71	9.00	0.29	0.39	0.39	NB LANE - MOUNT VERNON / SB LANE - ODOT
LOCATION 3 TOTALS CARRIED TO SHEET 20							1.47	
4	KNO	SR 13	8.42	8.50	0.08	0.11	0.11	BOTH LANES INSIDE MOUNT VERNON CORP.
4	KNO	SR 13	9.00	9.16	0.16	0.22	0.22	BOTH LANES INSIDE MOUNT VERNON CORP.
LOCATION 4 TOTALS CARRIED TO SHEET 21							0.33	

ITEM 642 FAST DRY EDGE LINE SUB-SUMMARY															
L O C A T I O N	C O U N T Y	R O U T E	SLM		WHITE EDGE LINE QUANTITIES				YELLOW EDGE LINE QUANTITIES				R E M A R K S		
			FROM	TO	TOTAL MILES	HIGH- WAY MILES	RAMP MILES	HIGH- WAY MILES	TOTAL MILES	HIGH- WAY MILES	RAMP MILES	HIGH- WAY MILES			
			1	LIC	SR 13	22.39	22.55	0.16	0.32						
1	LIC	SR 13	23.22	23.58	0.36	0.36									SLM 23.22 TO KNOX COUNTY LINE (NORTH BOUND LANE ONLY)
LOCATION 1 TOTALS CARRIED TO SHEET 19							0.68								
2	KNO	SR 13	0.00	7.37	7.37	14.74								KNOX COUNTY LINE TO MOUNT VERNON SOUTH CORP.	
2	KNO	SR 13	7.98	8.16	0.18	0.36								BOTH LANES OUTSIDE MOUNT VERNON CORP.	
2	KNO	SR 13	8.22	8.30	0.08	0.16								BOTH LANES OUTSIDE MOUNT VERNON CORP.	
			8.50	8.71	0.21	0.42								BOTH LANES OUTSIDE MOUNT VERNON CORP.	
LOCATION 2 TOTALS CARRIED TO SHEET 19							15.88								
3	KNO	SR 13	7.37	7.98	0.61	1.22								SB LANE - MOUNT VERNON / NB LANE - ODOT	
3	KNO	SR 13	8.16	8.22	0.06	0.12								SB LANE - MOUNT VERNON / NB LANE - ODOT	
3	KNO	SR 13	8.30	8.42	0.12	0.24								SB LANE - MOUNT VERNON / NB LANE - ODOT	
3	KNO	SR 13	8.71	9.00	0.29	0.58								NB LANE - MOUNT VERNON / SB LANE - ODOT	
LOCATION 3 TOTALS CARRIED TO SHEET 20							2.16								
4	KNO	SR 13	8.42	8.50	0.08	0.16								BOTH LANES INSIDE MOUNT VERNON CORP.	
4	KNO	SR 13	9.00	9.16	0.16	0.32								BOTH LANES INSIDE MOUNT VERNON CORP.	
LOCATION 4 TOTALS CARRIED TO SHEET 21							0.48								

CALCULATED
DNM
CHECKED
JLS

CENTER / EDGE LINE SUB-SUMMARY

LIC-13-22.55
KNO-13-0.00

PAVEMENT MARKING SUB-SUMMARY

CALCULATED
DMM
CHECKED
JLS

PAVEMENT MARKING SUB-SUMMARY

644 THERMOPLASTIC																	
LOCATION	COUNTY	ROUTE	DESCRIPTION	SIDE	STOP LINE	12" CROSS WALK LINES	WORD ON PAVEMENT		SCHOOL SYMBOL MARKING		LANE ARROWS			RAILROAD SYMBOL MARKING	REMARKS		
					A		ONLY	ONLY	ONLY	ONLY	COMBINATION		TURN				
					24"	WHITE	72"	96"	72"	96"	LT/TH	RT/TH	LT			RT	TH
					FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH			EACH	EACH
1	LIC	SR 13	BLACKSNAKE RD.	RT	17										PLACE 21' FROM CL OF SR 13		
1	LIC	SR 13	SR 13/US 62 INTERSECTION	CL	34										PLACE AS DIRECTE (17' SR 13 NB & 17' SR 13 SB)		
1	LIC	SR 13	SR 13 /MILL ST. INTERSECTION	CL	31										PLACE AS DIRECTED (15.5' SR 13 NB & 15.5' SR 13 SB), CROSSWALKS ELIMINATED		
1	LIC	SR 13	MILL ST.	RT		62									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	RT		26									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	LT		30									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	LT		16									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	RT		28									PLACE AS DIRECTED		
1	LIC	SR 13	SR 13/ALLEY INTERSECTION (SLM 22.82)	CL		62									PLACE AS DIRECTED, CROSSWALK SOUTH SIDE OF INTER. ONLY		
1	LIC	SR 13	ALLEY	LT		44									PLACE AS DIRECTED		
1	LIC	SR 13	SPRING ST.	RT		44									PLACE AS DIRECTED		
1	LIC	SR 13	SR 13/SPRING ST. INTERSECTION	CL	32	62									STOP LINE 16' EACH LANE, CROSSWALK SOUTH SIDE OF INTER. ONLY		
1	LIC	SR 13	ALLEY	LT		42									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	LT		28									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	RT		24									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	LT		30									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	RT		24									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	LT		24									PLACE AS DIRECTED		
1	LIC	SR 13	CHURCH ST.	RT		62									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	LT		24									PLACE AS DIRECTED		
1	LIC	SR 13	ALLEY	LT		26									PLACE AS DIRECTED		
1	LIC	SR 13	MAPLE AVE.	RT		56									PLACE AS DIRECTED		
1	LIC	SR 13	NORTH ST.	RT	18										PLACE 19' FROM CL OF SR 13		
1	LIC	SR 13	CRESTVIEW DR.	RT	11										PLACE 18' FROM CL OF SR 13		
1	LIC	SR 13	KIRKPATRICK RD.	LT	35										PLACE 20' FROM CL OF SR 13		
LOCATION 1 TOTALS CARRIED TO SHEET 19					178	714											

L013001.dgn Date 05/18/07

LIC-13-22.39
KNO-13-0.00

PAVEMENT MARKING SUB-SUMMARY

644 THERMOPLASTIC

L O C A T I O N	C O U N T Y	R O U T E	DESCRIPTION	SIDE	STOP	12"	WORD ON		SCHOOL		LANE ARROWS			RAILROAD SYMBOL MARKING	REMARKS
					LINE	CROSS	PAVEMENT		SYMBOL		COMBINATION				
					A	WALK	ONLY	ONLY	ONLY	ONLY	COMBINATION	TURN			
					24"	WHITE	72"	96"	72"	96"	LT/TH	RT/TH	LT		
					FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
2	KNO	SR 13	VANCE RD. - CR 29	LT	12										PLACE AS DIRECTED
2	KNO	SR 13	TUMA RD. - TR 140	LT	10										PLACE AS DIRECTED
2	KNO	SR 13	ARRINGTON RD. - CR 30	RT	12										PLACE AS DIRECTED
2	KNO	SR 13	SHORT RD. - TR 427	LT	14										PLACE AS DIRECTED
2	KNO	SR 13	SHORT RD. - TR 427	RT	14										PLACE AS DIRECTED
2	KNO	SR 13	TULLOSS RD. - TR 138	LT	22										PLACE 19' FROM CL SR 13
2	KNO	SR 13	RR CROSSING @ SLM 3.89 CSX	CL									2		PLACE AS DIRECTED
2	KNO	SR 13	TULLOSS RD. - TR 138	RT	19										PLACE 19' FROM CL SR 13
2	KNO	SR 13	MORGAN CENTER RD. - CR 28	RT	20										PLACE 26' FROM CL SR 13
2	KNO	SR 13	SYCAMORE RD. - CR 27	RT	20										PLACE 20' FROM CL SR 13
2	KNO	SR 13	SYCAMORE RD. - CR 27	LT	18										PLACE 20' FROM CL SR 13
2	KNO	SR 13	ESTHER LN. - TR 137	LT	12										PLACE 17' FROM CL SR 13
2	KNO	SR 13	ROAD AT BOWLING CENTER	RT	20										PLACE 21' FROM CL SR 13
2	KNO	SR 13	MURRAY RD. - CR 64	RT	24										PLACE 24' FROM CL SR 13
2	KNO	SR 13	RANGE LINE RD. - CR 57	LT	30										PLACE 20' FROM CL SR 13
2	KNO	SR 13	BROOKWOOD RD. - TR 611	RT	14										PLACE 20' FROM CL SR 13
2	KNO	SR 13	WINNEY DR.	LT	16										PLACE 18' FROM CL SR 13
2	KNO	SR 13	SOUTH RIDGE RD.	RT	19										PLACE 19' FROM CL SR 13
2	KNO	SR 13	CLUB DR. - TR 610	RT	20										PLACE 20' FROM CL SR 13
2	KNO	SR 13	MILLSTONE LN.	RT	16										PLACE 17' FROM CL SR 13
2	KNO	SR 13	LAKEVIEW DR.	RT	17										PLACE 19' FROM CL SR 13
2	KNO	SR 13	GLEN RD. - TR 257	RT	19										PLACE 20' FROM CL SR 13
LOCATION 2 TOTALS CARRIED TO SHEET 19					368								2		
4	KNO	SR 13	BLACKJACK RD. - SR 661	LT	27										PLACE 21' FROM CL SR 13
4	KNO	SR 13	INDUSTRIAL PARK DR.	LT	30										PLACE 18' FROM CL SR 13
4	KNO	SR 13	PROGRESS DR.	LT	24										PLACE 27' FROM CL SR 13
4	KNO	SR 13	DIXIE DR.	RT	23										PLACE 20' FROM CL SR 13
4	KNO	SR 13	GREENWAY DR.	LT	12										PLACE 19' FROM CL SR 13
4	KNO	SR 13	MELICK ST.	LT	18										PLACE 20' FROM CL SR 13
LOCATION 4 TOTALS CARRIED TO SHEET 21					134										

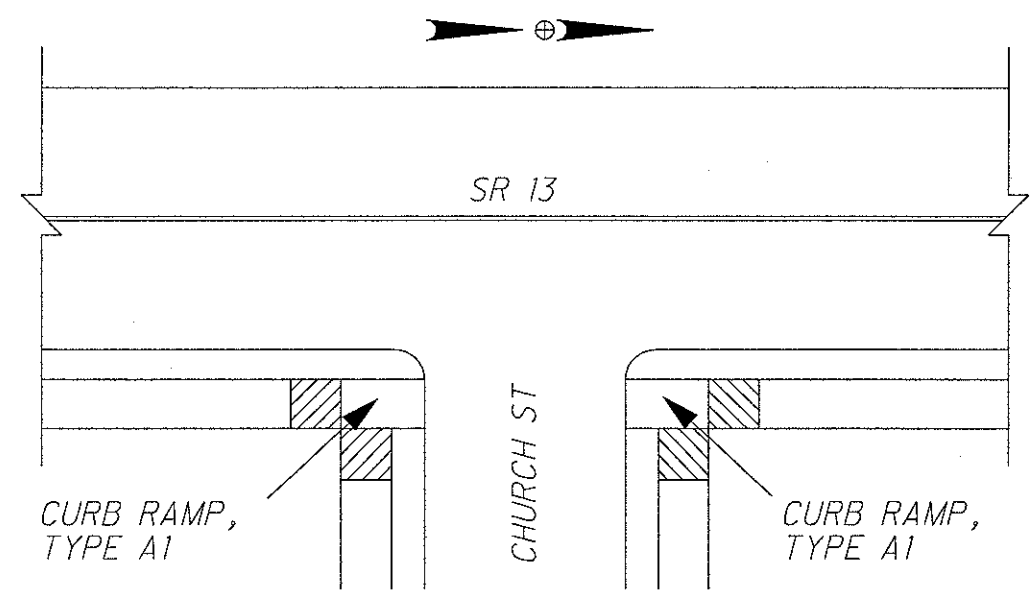
L013001asst.dgn Date 05/18/07

CALCULATED
DNM
CHECKED
JLS

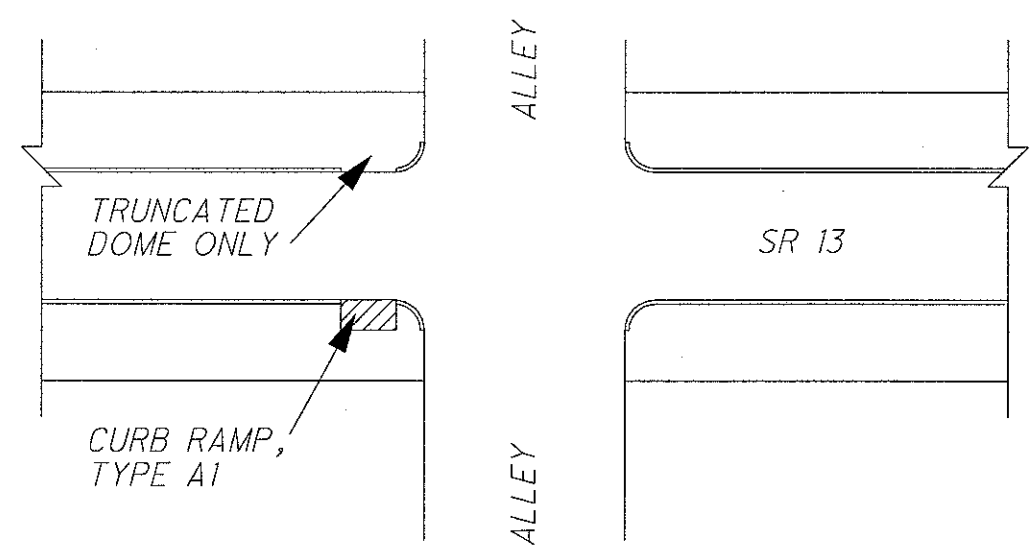
PAVEMENT MARKING SUB-SUMMARY

LIC-13-22-39
KNO-13-0.00

THE FOLLOWING AVERAGE QUANTITIES ARE USED FOR CALCULATING
REMOVAL OF EXISTING WALK/ CURB AND CURB RAMP INSTALLATION:
TYPE A1 RAMPS = 66 SQ.FT. , 18 FT. CURB



SR 13/CHURCH ST. INTERSECTION



SR 13/ALLEY INTERSECTION (SLM 22.82)

WALK REMOVED & RECONSTRUCTED WITH CURB RAMP: 5' x 5' = 25 SF

SR13 @ CHURCH ST (SE CORNER):
ITEM 202 CURB REMOVED: 18 FT
ITEM 202 WALK REMOVED: 25 x 2 = 50 SF
ITEM 608 CURB RAMP, TYPE A1: 66 SF + 50 SF = 116 SF

SR13 @ CHURCH ST (NE CORNER):
ITEM 202 CURB REMOVED: 18 FT
ITEM 202 WALK REMOVED: 25 x 2 = 50 SF
ITEM 608 CURB RAMP, TYPE A1: 66 SF + 50 SF = 116 SF

SR13 @ ALLEY (SE CORNER):
ITEM 202 CURB REMOVED: 18 FT
ITEM 202 WALK REMOVED: 25 = 25 SF
ITEM 608 CURB RAMP, TYPE A1: 66 SF + 25 SF = 91 SF

TOTAL:
ITEM 202 CURB REMOVED: 18 + 18 + 18 = 54 FT
ITEM 202 WALK REMOVED: 50 + 50 + 25 = 125 SF
ITEM 608 CURB RAMP, TYPE A1: 116 + 116 + 91 = 323 SF

TRUNCATED DOMES (ONLY):

SR13 & MAPLE ST (SE CORNER)	1 EACH
SR13 & ALLEY @ SLM 22.82 (SE CORNER)	1 EACH
SR13 & SPRING ST (NE CORNER, SW CORNER AND (2) AT THE SE CORNER)	4 EACH
SR13 & MILL ST (NE & SE CORNERS)	2 EACH
<hr/>	
ITEM 608 TRUNCATED DOME TOTAL =	8 EACH

TOTALS - LOCATION 1

ITEM 202 CURB REMOVED: 54 FT
ITEM 202 WALK REMOVED: 125 SF
ITEM 608 CURB RAMP, TYPE A1: 323 SF
ITEM 608 TRUNCATED DOMES: 8 EACH

QUANTITIES CARRIED TO THE SHEET 19 OF 22

LO13UTICA.dgn Date 05/18/07

80% FEDERAL / 20% STATE FUNDING SPLIT FOR LOCATION 1 AND LOCATION 2

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LOCATION 1 SHEET TOTALS									LOCATION 2 SHEET TOTALS									ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET NO.	
3	4	6	7	8	9	15	16	18	3	4	6	7	8	10	12	14	15	17						
					1275				492										202	23500	1767	SQ. YD.	WEARING COURSE REMOVED	
															264				202	23501	264	SQ. YD.	WEARING COURSE REMOVED, AS PER PLAN	12
								125											202	30000	125	SQ. FT.	WALK REMOVED	
								54											202	32000	54	FT.	CURB REMOVED	
											1								202	53100	1	EACH	MAILBOX REMOVED	
										552									202	54000	552	EACH	RAISED PAVEMENT MARKER REMOVED	
										3.00									209	60500	3.00	MILE	LINEAR GRADING	
	230									1515									253	01001	1745	SQ. YD.	PAVEMENT REPAIR, AS PER PLAN	6
		19965	1033																254	01001	20998	SQ. YD.	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	5
			1498	78	97							8280	1387	354	13				407	10000	11707	GAL.	TACK COAT	
											409								408	10001	409	GAL.	PRIME COAT, AS PER PLAN	6
			833	44	55				50	60		4600	771	197	16				442	20001	6626	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE A (448), AS PER PLAN	5
															160				512	55800	160	SQ. YD.	TYPE D WATERPROOFING	
															123				SPECIAL	518E22300	123	FT.	STEEL DRIP STRIP	
	6																		604	09000	6	EACH	CATCH BASIN ADJUSTED TO GRADE	
	1																		604	34500	1	EACH	MANHOLE ADJUSTED TO GRADE	
								323											608	52010	323	SQ. FT.	CURB RAMP, TYPE A1	
								8											608	53000	8	EACH	TRUNCATED DOMES	
18									123										614	12460	141	EACH	WORK ZONE MARKING SIGN	
									3										614	13000	3	CU.YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
			2.38									7.84							614	21400	10.22	MILE	WORK ZONE CENTER LINE, CLASS II	
													1023						617	10101	1023	CU. YD.	COMPACTED AGGREGATE, AS PER PLAN	2
															552				621	00100	552	EACH	RPM	
0.01						0.68											15.68		642	00100	16.37	MILE	EDGE LINE, TYPE 1	
0.01						2.38											10.53		642	00300	12.92	MILE	CENTER LINE, TYPE 1	
								178										368	644	00500	546	FT.	STOP LINE	
								714											644	00600	714	FT.	CROSSWALK LINE	
50																			644	00700	50	FT.	TRANSVERSE/DIAGONAL LINE	
																		2	644	01000	2	EACH	RAILROAD SYMBOL MARKING	
											1								SPECIAL	690E50100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	

LOCATION 1 AND LOCATION 2 SUBSUMMARY

LIC-13-22.39
KNO-13-0.00

L01300mgsi.dgn Date 06/22/07

80% FEDERAL / 10% STATE / 10% LOCAL FUNDING SPLIT FOR LOCATION 3

LOCATION 3 SHEET TOTALS

LOCATION 3 SHEET TOTALS								ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION	SHEET NO.
3	4	6	7	8	14	15							
	77							202	54000	77	EACH	RAISED PAVEMENT MARKER REMOVED	
	209							253	01001	209	SQ. YD.	PAVEMENT REPAIR, AS PER PLAN	6
			1141	210				407	10000	1351	GAL.	TACK COAT	
		57						408	10001	57	GAL.	PRIME COAT, AS PER PLAN	6
7			634	117				442	20001	758	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE A (448), AS PER PLAN	5
			1.08					614	21400	1.08	FT.	WORK ZONE CENTER LINE, CLASS II	
				142				617	10101	142	CU. YD.	COMPACTED AGGREGATE, AS PER PLAN	2
						77		621	00100	77	EACH	RPM	
								642	00100	2.16	MILE	EDGE LINE, TYPE 1	
								642	00300	1.47	MILE	CENTER LINE, TYPE 1	

LOCATION 3 SUBSUMMARY

**LIC-13-22-39
KNO-13-0.00**

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L01300mgs2.dgn Date 06/22/07

80% FEDERAL / 20% LOCAL FUNDING SPLIT FOR LOCATION 4

CALCULATED
DNM
CHECKED
JLS

LOCATION 4 SHEET TOTALS									ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	6	7	8	10	14	15	17						
164									202	23500	164	SQ. YD.	WEARING COURSE REMOVED	
	19								202	54000	19	EACH	RAISED PAVEMENT MARKER REMOVED	
	46								253	01001	46	SQ. YD.	PAVEMENT REPAIR, AS PER PLAN	6
			254	68	99				407	10000	421	GAL.	TACK COAT	
		13							408	10001	13	GAL.	PRIME COAT, AS PER PLAN	6
1			141	38	55				442	20001	235	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE A (448), AS PER PLAN	5
1			0.24						614	13000	1	CU.YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
									614	21400	0.24	MILE	WORK ZONE CENTER LINE, CLASS II	
				32					617	10101	32	CU. YD.	COMPACTED AGGREGATE, AS PER PLAN	2
						19			621	00100	19	EACH	RPM	
							0.48		642	00100	0.48	MILE	EDGE LINE, TYPE 1	
							0.33		642	00300	0.33	MILE	CENTER LINE, TYPE 1	
								134	644	00500	134	FT.	STOP LINE	

LOCATION 4 SUBSUMMARY

LIC-13-22.39
KNO-13-0.00

LOCATION 1 & 2	LOCATION 3	LOCATION 4	PARTICIPATION			ITEM	ITEM EXT. NO.	GRAND TOTALS	UNIT	DESCRIPTION	SEE SHEET NO.
			80% FEDERAL / 20% STATE	80% FEDERAL / 10% STATE / 10% LOCAL	80% FEDERAL / 20% LOCAL						
SHEET 19	SHEET 20	SHEET 21									
1767		164	1767		164	202	23500	1931	SQ. YD.	WEARING COURSE REMOVED	
264			264			202	23501	264	SQ. YD.	WEARING COURSE REMOVED, AS PER PLAN	12
125			125			202	30000	125	SQ. FT.	WALK REMOVED	
54			54			202	32000	54	FT.	CURB REMOVED	
1			1			202	53100	1	EACH	MAILBOX REMOVED	
552	77	19	552	77	19	202	54000	648	EACH	RAISED PAVEMENT MARKER REMOVED	
3.00			3.00			209	60500	3.00	MILE	LINEAR GRADING	
1745	209	46	1745	209	46	253	01001	2000	SQ. YD.	PAVEMENT REPAIR, AS PER PLAN	6
20998			20998			254	01001	20998	SQ. YD.	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN	5
11707	1351	421	11707	1351	421	407	10000	13479	GAL.	TACK COAT	
409	57	13	409	57	13	408	10001	479	GAL.	PRIME COAT, AS PER PLAN	6
6626	758	235	6626	758	235	442	20001	7619	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, 12.5 mm, TYPE A (448), AS PER PLAN	5
160			160			512	55800	160	SQ. YD.	TYPE D WATERPROOFING	
123			123			SPECIAL	518E22300	123	FT.	STEEL DRIP STRIP	
6			6			604	09000	6	EACH	CATCH BASIN ADJUSTED TO GRADE	
1			1			604	34500	1	EACH	MANHOLE ADJUSTED TO GRADE	
323			323			608	52010	323	SQ. FT.	CURB RAMP, TYPE A1	
8			8			608	53000	8	EACH	TRUNCATED DOMES	
141			141			614	12460	141	EACH	WORK ZONE MARKING SIGN	
3		1	3		1	614	13000	4	CU.YD.	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
10.22	1.08	0.24	10.22	1.08	0.24	614	21400	11.54	MILE	WORK ZONE CENTER LINE, CLASS II	
1023	142	32	1023	142	32	617	10101	1197	CU. YD.	COMPACTED AGGREGATE, AS PER PLAN	2
552	77	19	552	77	19	621	00100	648	EACH	RPM	
16.37	2.16	0.48	16.37	2.16	0.48	642	00100	19.01	MILE	EDGE LINE, TYPE 1	
12.92	1.47	0.33	12.92	1.47	0.33	642	00300	14.72	MILE	CENTER LINE, TYPE 1	
546		134	546		134	644	00500	680	FT.	STOP LINE	
714			714			644	00600	714	FT.	CROSSWALK LINE	
50			50			644	00700	50	FT.	TRANSVERSE/DIAGONAL LINE	
2			2			644	01000	2	EACH	RAILROAD SYMBOL MARKING	
1			1			SPECIAL	690E50100	1	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	
			LUMP			614	11000	LUMP		MAINTAINING TRAFFIC	
			3			619	16010	3	MONTH	FIELD OFFICE, TYPE B	
			LUMP			623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
			LUMP			624	10000	LUMP		MOBILIZATION	

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GENERAL SUMMARY
 LIC-13-22-39
 KNO-13-0.00
 22
 22

L01300mgs3.dgn Date 06/22/07